

NWS FORM E-5

(11-88)

(PRES. by NWS Instruction 10-924)

U.S. DEPARTMENT OF COMMERCE**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION****NATIONAL WEATHER SERVICE****HYDROLOGIC SERVICE AREA (HSA)****WFO Jackson, Mississippi****MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:

MONTH

YEAR

April**2014**

SIGNATURE

TO: Hydrometeorological Information Center, W/OH2
NOAA / National Weather Service
1325 East West Highway, Room 7230
Silver Spring, MD 20910-3283

DATE

05/23/14

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)



An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

April was a very wet month across the Jackson, MS Hydrologic Service Area (HSA). Some locations within the HSA received more than 15 inches of rainfall, which is more than 300% of normal precipitation for the month. While that included only a few isolated sites, the majority of the HSA received eight or more inches of rainfall, which is still 150% of normal precipitation. This rainfall in turn allowed the Mississippi Delta, Northeastern Louisiana, and Southeastern Arkansas to be removed from the "abnormally dry" and "moderate drought" categories on the drought monitor. Temperature-wise, the month was pretty normal. All Automated Surface Observations Sites (ASOS) were within one degree of normal, besides Greenwood which averaged 1.6 degrees below normal.

This month began with an extended period of rainfall beginning on the 4th and ending on the 7th. The heaviest rainfall fell just north of the southern end of the Big Black River basin, just south of the Upper Pearl River basin, and in the Noxubee River basin. These areas accrued more than six inches of rainfall within 48 hours. This event kicked off flooding problems which persisted throughout the entire month. Record river flooding was reported on the Strong River and significant flash flooding was reported across these areas.

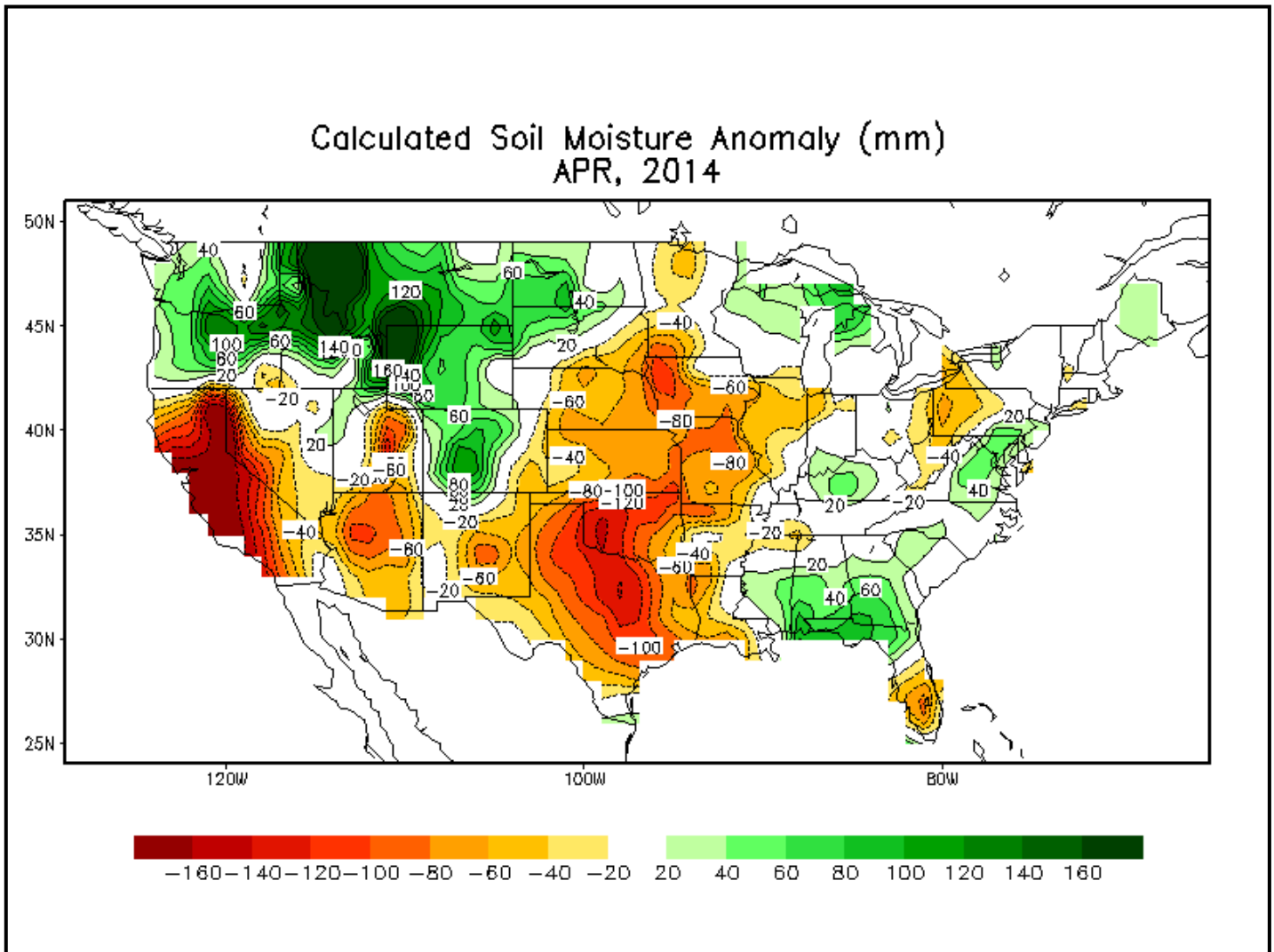
The following week remained relatively quiet until the 14th and 15th, when another heavy rainfall event transpired. Although not quite as impactful as the first event, this storm system did lay down up to six inches again along the Big Black basin. Widespread rainfall of two to three inches was more common throughout the HSA though.

During the next week and a half, a couple of insignificant systems passed through. Due to cyclogenesis in the Gulf and the associated low pressure system moving into the northeastern Gulf, some scattered rainfall occurred on the 18th and 19th. No more than three quarters of an inch was measured within the HSA. A cold front then passed through the area on the 22nd and 23rd which led, again, to no more than three quarters of an inch of rainfall. One more fast moving cold front passed through the area on the 25th. This time rainfall was only measured in the northern third of the HSA. The upper Big Black basin accrued the most rainfall this time, measuring up to three inches right over the gauge at West, MS.

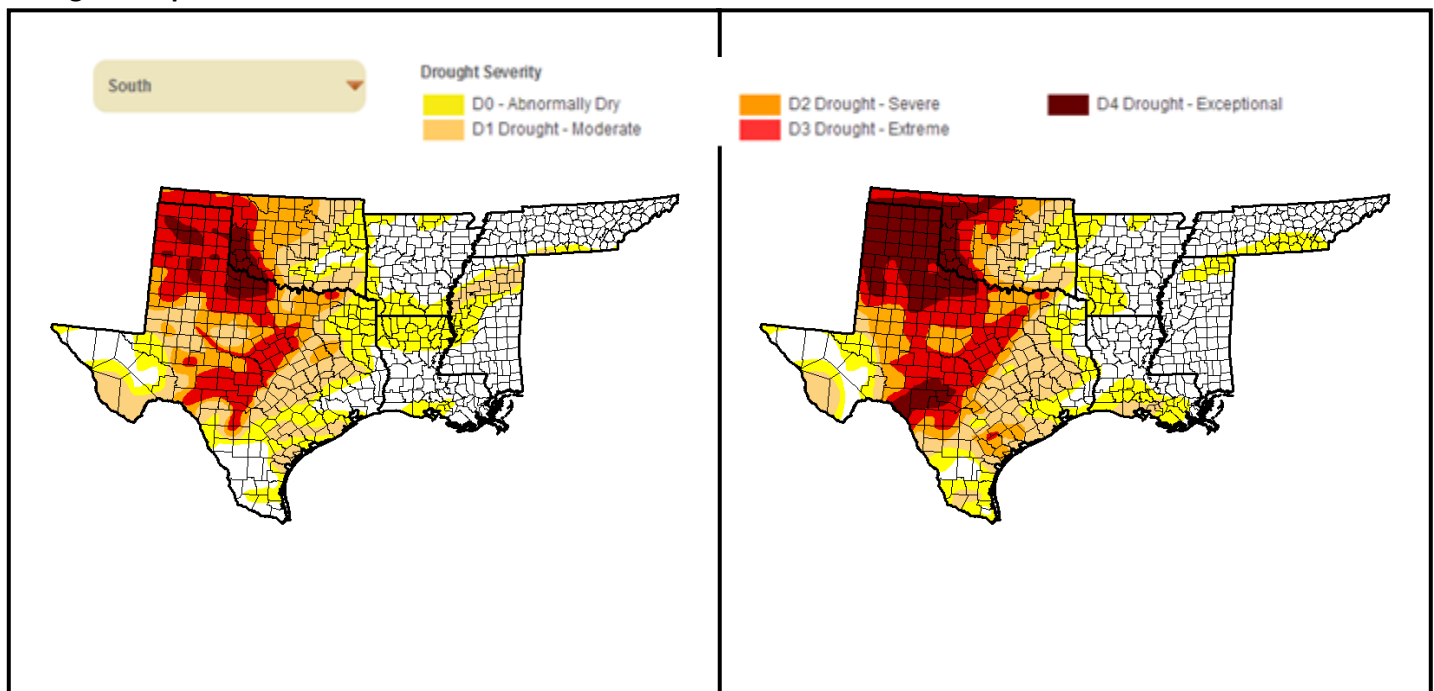
The 27th through 30th brought a major severe weather outbreak to the HSA. Several significant tornadoes were reported (Brandon-Pearl-Richland (EF3) and the Louisville EF4) and widespread wind damage was found throughout the HSA, particularly on the 28th. This event had the potential of becoming another record-breaking rainfall/flooding event similar to the beginning of the month. The Jackson HSA however lucked out with the evolution of the system. Southern Mississippi and Alabama and Western Florida received the record-breaking rainfall instead with some places recording up to two feet of rainfall within 24 hours. Within the HSA though, many locations received two to four inches. This rainfall triggered river flooding again which lasted through the beginning of the month of May.

River and Soil Conditions...

Soil Moisture Map:



Drought Comparison:



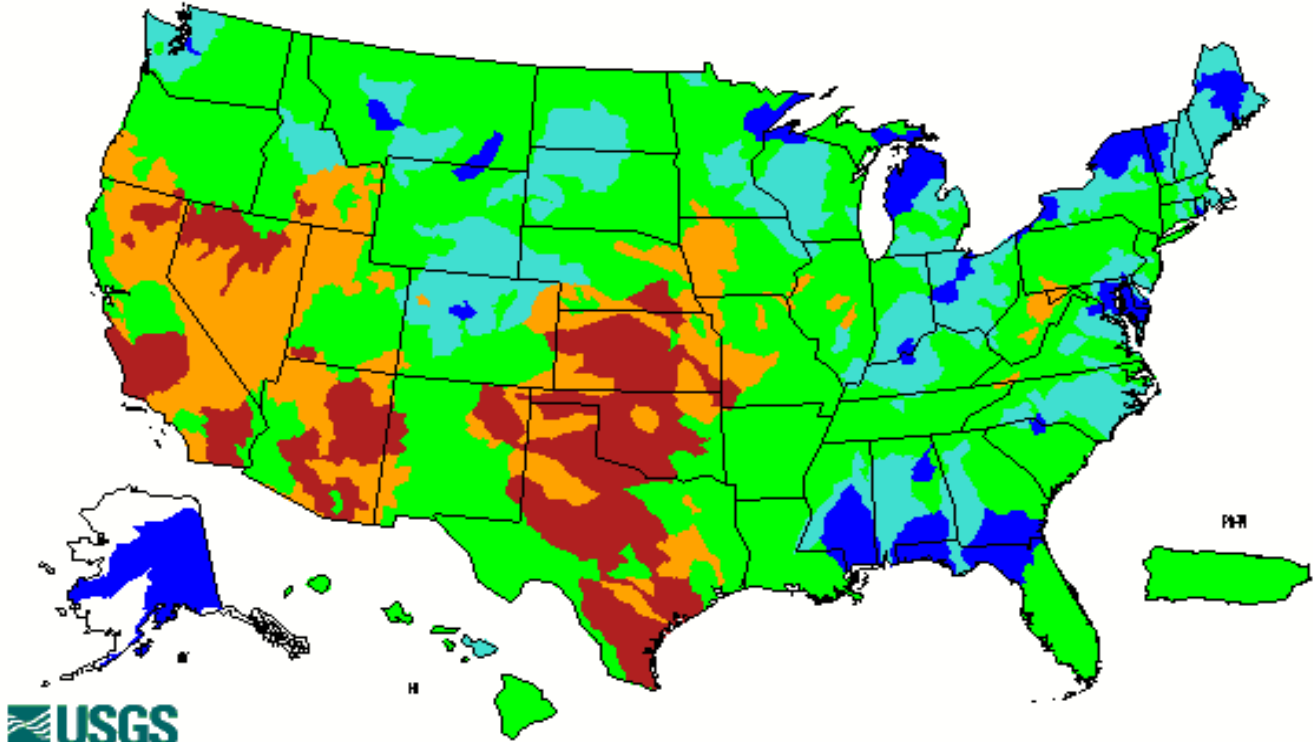
Apr. 1, 2014

Apr. 29, 2014

Streamflow:

The United States Geological Survey's (USGS) April 2014 river streamflow records were compared with all historical April streamflow records. The April streamflow was much above normal in the southeastern half of the HSA and normal or close to normal in the northwestern half.

April 2014



Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

River Conditions:

The majority of rivers in the central and eastern portions of the HSA experienced flooding at some point during the month of April. The Strong River at D'Lo measured an all-time record crest at 34.26 feet which caused some major problems and many road closures. Major flooding was reported along the Tallahala Creek at Laurel. Moderate flooding occurred along the Pearl, Big Black, Leaf, Chickasawhay and the Noxubee River. The flooding along the Pearl River at Jackson was the highest since 2003. Minor flooding occurred on the Boeuf River at Fort Necessity, the Yazoo River at Yazoo City, the Leaf River at Collins, Tibbee Creek at Tibbee, and the Yalobusha River at Whaley. By the end of the month, only a few points along the Big Black, Pearl, Noxubee, and Chickasawhay Rivers were still in flood, primarily due to the heavy rainfall event which transpired near the end of the month. The Mississippi River rose above action stage at all sites from Arkansas City to Natchez during the middle of the month and then fell below again at all sites towards the end of the month.

Climatic Outlook and Flood Potential:

The climatic outlook favors above normal temperatures over the next 3 months. As for precipitation, the outlook shows below normal rainfall south and west of a line from Greenville to Waynesboro Mississippi while to the east and northeast of this line there are equal chances of above, below, and normal rainfall. Based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.

Yazoo River System: Average.

Big Black River System: Average.

Homochitto River System: Average.

Pascagoula River System: Average.

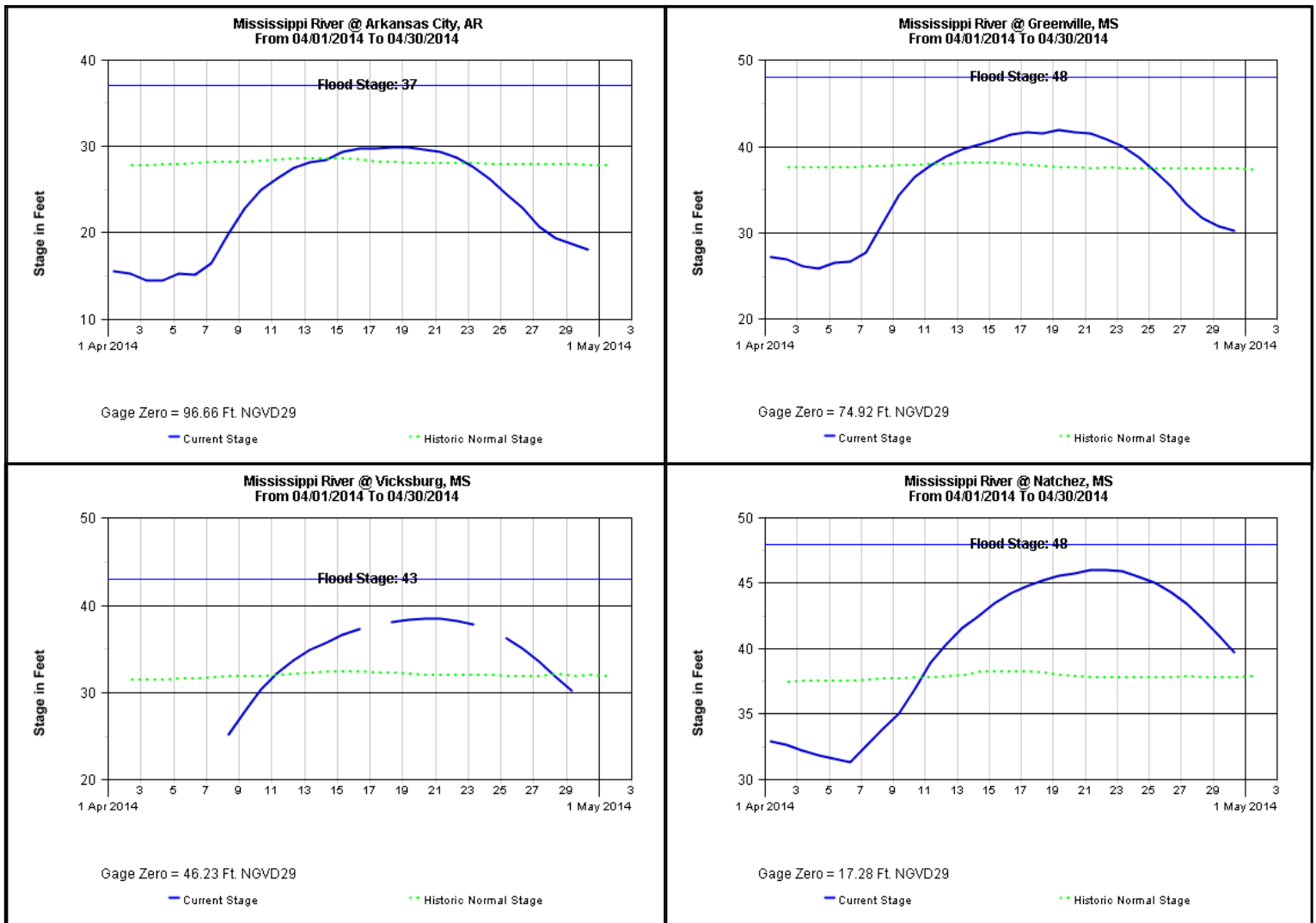
Northeast LA and Southeast AR: Average.

Tombigbee River System: Average.

Mississippi River: Average.

Mississippi River Plots April 2014

Plots courtesy of the United States Army Corps of Engineers



Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	29.91	4/19	14.48	4/04
Greenville	48	41.92	4/19	25.94	4/04
Vicksburg	43	38.48	4/20	22.55	4/06
Natchez	48	46.05	4/22	31.35	4/06

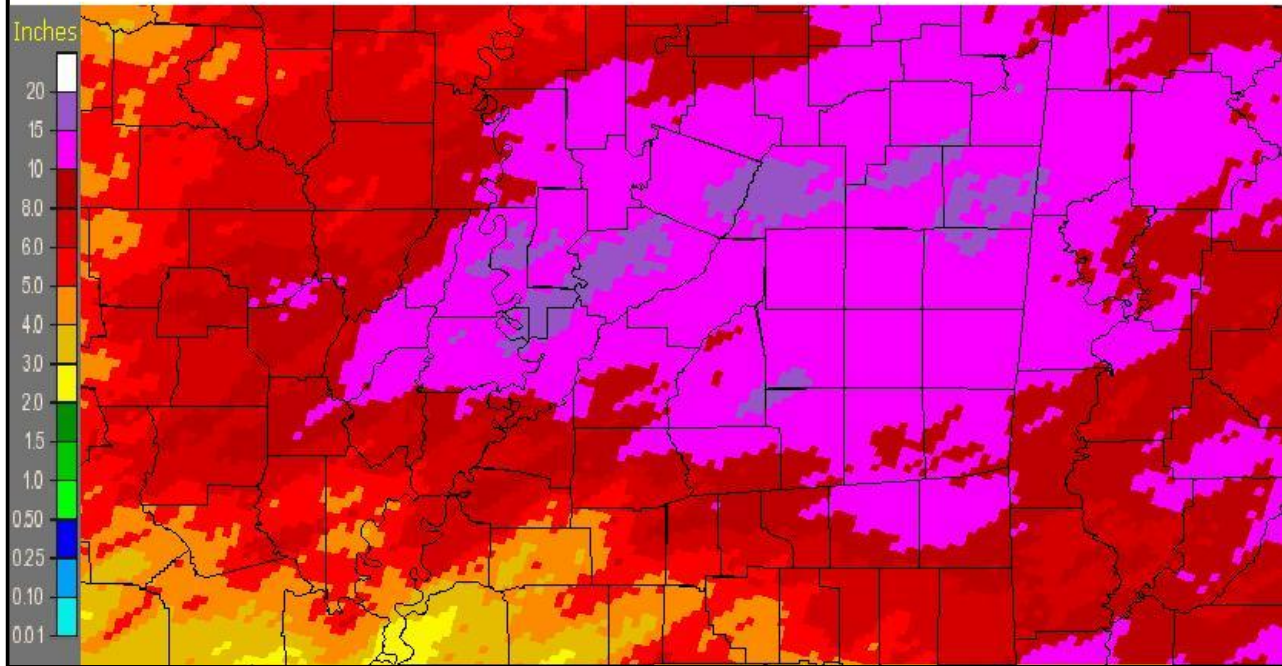
Rainfall for the Month of April:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on March 31st until 7 am on April 30th were:

17.88 Inches at Kosciusko, MS; 15.51 inches at Raleigh, MS; 15.37 inches at Yazoo City, MS; 15.01 inches at Lake Providence, LA; 14.51 inches at Philadelphia, MS; 14.15 inches at Newton, MS; 13.88 inches at Louisville, MS; 13.69 inches at Crawford, MS; 13.65 inches at Tallulah, LA; 13.54 inches at Walnut Grove, MS; 13.44 inches at Collinsville, MS; 12.96 inches at Rolling Fork, MS; 12.91 inches at Pat Harrison Waterway's Turkey Creek Water Park, MS and Tipton, MS ; 12.47 inches at Okatibbee Reservoir, MS; 12.47 inches at Belzoni, MS; 12.46 inches at Laurel, MS; 12.17 inches at Canton, MS;

April Rainfall Estimates:

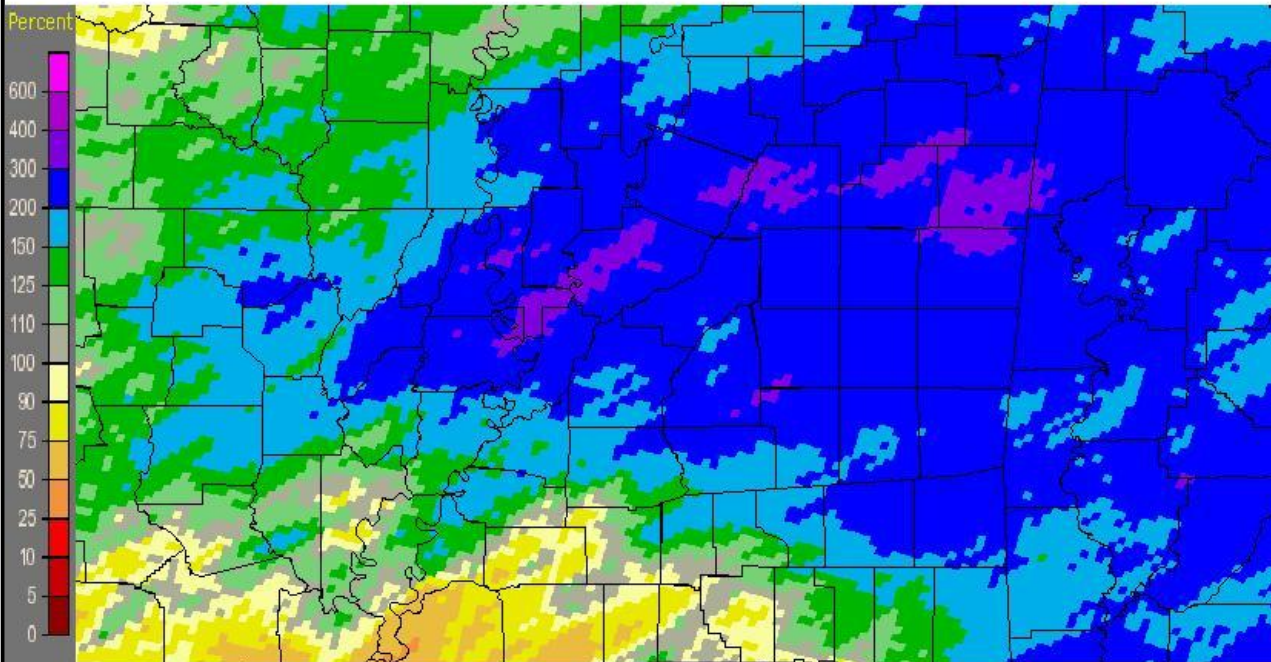
Jackson, MS (JAN): April, 2014 Monthly Observed Precipitation
Valid at 5/1/2014 1200 UTC- Created 5/1/14 15:38 UTC



Note: Observer rainfall and MPE may differ due to time differences.

Percent of Normal Precipitation:

Jackson, MS (JAN): April, 2014 Monthly Percent of Normal Precipitation
Valid at 5/1/2014 1200 UTC- Created 5/1/14 15:39 UTC



Note: Observer rainfall and MPE may differ due to time differences.

April Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2014 Rainfall	2014 Departure from Normal
Jackson (KJAN)	12.52	+7.56	25.22	+5.49
Meridian (KMEI)	14.03	+9.25	29.12	+8.19
Greenville (KGLH)	9.07	+4.26	18.88	-0.47
Greenwood (KGWO)	9.62	+4.49	19.98	+1.60
Hattiesburg (KHBG)	6.24	+1.31	22.51	+0.95
Vicksburg (KTVR)	13.05	+8.08	24.40	+4.06

Total Flood Warning products issued: 44

Total Flood Statement products issued: 341

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 30

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30

Daily River and Lake Summary Products (RVD'S) issued: 30

Marty V. Pope

Service Hydrologist

&

Anna Weber

Assistant Hydrologist/ Meteorologist-Intern

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District